

Attorney Docket No.: J3678(C)  
Serial No.: 10/520,394  
Filed: January 4, 2005  
Confirmation No.: 5147

### **AMENDMENTS TO THE CLAIMS**

This listing of claims will replace all prior versions and listing of claims in the application.

#### **Listing of Claims:**

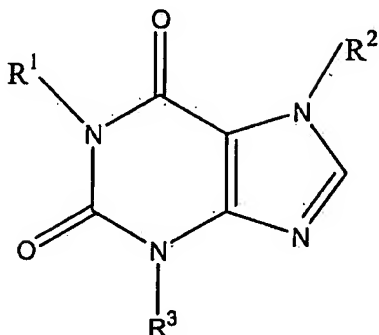
Claim 1 (Currently Amended) A method of treating hair comprising the step of applying to the hair a leave on hair treatment composition ~~comprising~~ consisting essentially of:

- i) citric acid, tartaric acid, their salts or mixtures thereof; and
- ii) a xanthine, substituted xanthine or mixtures thereof, wherein the ratio of i) to ii) is from 1:0.01 to 0.01:1,
- iii) an aqueous base, and
- iv) optionally, one or more additives selected from the group consisting of cationic polymers, conditioning surfactants, fatty materials, suspending agents, silicone conditioning agents, non-silicone oily conditioning components, and styling polymers.

wherein the leave on hair treatment composition is applied to lengthen the hair, decrease the volume of the hair and/or to increase the high humidity style retention of the hair.

Claim 2 (Previously Presented) A method according to claim 1 in which the xanthine substituted xanthine ii) of the hair treatment composition has the following formula:

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in which  $R^1$ ,  $R^2$  and  $R^3$  are independently selected from H, substituted or unsubstituted  $C_1$ - $C_5$  alkyl groups, substituted or unsubstituted  $C_2$ - $C_5$  alkenyl groups, aryl groups, arylalkyl groups or mixtures thereof.

Claim 3 (Original) A method according to claim 2 in which  $R^1$ ,  $R^2$  and  $R^3$  of the xanthine/substituted xanthine ii) are independently selected from H,  $C_1$ - $C_5$  alkyl groups,  $C_2$ - $C_5$  alkenyl or mixtures thereof.

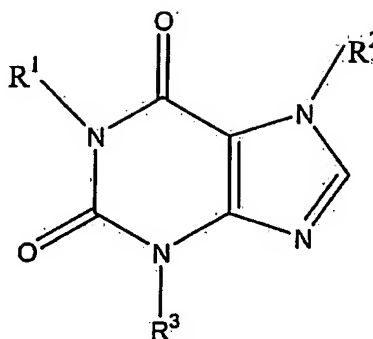
Claim 4 (Currently Amended) ~~A method according to claim 3 in which  $R^1$ ,  $R^2$  and  $R^3$  of ii) are independently selected from H, methyl groups or mixtures thereof~~ A method of treating hair comprising the step of applying to the hair a leave on hair treatment composition comprising:

- i) citric acid, tartaric acid, their salts or mixtures thereof; and
- ii) a xanthine, substituted xanthine or mixtures thereof, wherein the ratio of  
i) to ii) is from 1:0.01 to 0.01:1, and
- iii) from 0.001 to 10% by weight of a styling polymer,

wherein the leave on hair treatment composition is applied to lengthen the hair, decrease the volume of the hair and/or to increase the high humidity style retention of the hair;

wherein component (ii) of the composition comprises a xanthine of the formula

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wherein R<sup>1</sup> and R<sup>2</sup> are independently selected from H or substituted or unsubstituted C<sub>1</sub> to C<sub>5</sub> alkyl, and R<sup>3</sup> is substituted or unsubstituted C<sub>1</sub> to C<sub>5</sub> alkyl.

Claim 5 (Previously Presented) A method according to claim 1 in which the xanthine derivative ii) is caffeine.

Claim 6 (Previously Presented) A method according to claim 1 in which the  $\alpha$ -hydroxy acid and/or its salt if optically active is in the L-form.

Claim 7 (Previously Presented) A method according to claim 1 in which the total amount of acid/salt i) is from 0.1 to 20 wt% in the total formulation.

Claim 8 (Previously Presented) A method according to claim 1 in which the total amount xanthine ii) is from 0.1 to 20 wt% in the total formulation.

Claim 9 (Currently Amended) A method according to claim 44 in which the hair treatment composition further comprises a surfactant.

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Claim 10 (Currently Amended) A method according to claim ~~4~~4, in which the hair treatment composition further comprises a cationic, or silicone based conditioning agent.

Claim 11 (Currently Amended) A method according to claim 1 wherein a hair styling polymer is present in which ~~the hair treatment composition further comprises a styling agent.~~

Claim 12 (Currently Amended) A method according to claim ~~4~~4 in which the hair treatment composition comprises an aqueous base.

Claims 13-15 (Cancelled)

Claim 16 (Currently Amended) A method according to claim 1 wherein the substituted xanthine is selected from the group consisting of caffeine, dyphylline, cafaminol, theophylline, aminophylline, and theobromine.

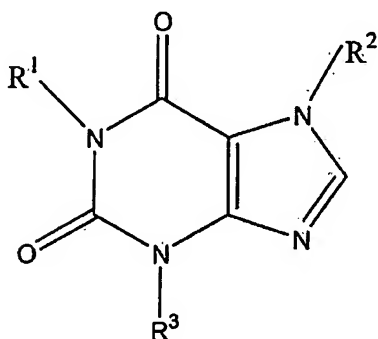
Claim 17 (Previously Presented) A method according to claim 1 wherein the ratio of i) to ii) is from 3:1 to 1:3.

Claim 18 (Previously Presented) A method according to claim 1 wherein the total amount of the xanthine ii) and  $\alpha$ -hydroxy acid present in the leave on hair treatment composition is from 2 to 5 wt.%.

Claim 19 (Currently Amended) A method of treating hair comprising the step of applying to the hair a leave on hair treatment composition ~~comprising~~ consisting essentially of:

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- i) an  $\alpha$ -hydroxy acid component comprising L-tartaric acid and/or its salt;  
and  
ii) a xanthine component comprising a substituted xanthine of the formula:



in which R<sup>1</sup>, R<sup>2</sup> and R<sup>3</sup> are independently selected from H, substituted or unsubstituted C<sub>1</sub>-C<sub>5</sub> alkyl groups, substituted or unsubstituted C<sub>2</sub>-C<sub>5</sub> alkenyl groups, aryl groups, arylalkyl groups or mixtures thereof,

- iii) an aqueous base, and  
iv) optionally, one or more additives selected from the group consisting of cationic polymers, conditioning surfactants, fatty materials, suspending agents, silicone conditioning agents, non-silicone oily conditioning components, and styling polymers.

wherein the ratio of the  $\alpha$ -hydroxy acid component i) to the xanthine component ii) is from 3:1 to 1:3, and wherein the total amount of  $\alpha$ -hydroxy acid component i) and xanthine component ii) present in the leave on hair treatment composition is from 2 to 5 wt.%.

Claim 20 (New) A method according to claim 4 wherein R<sup>1</sup>, R<sup>2</sup> and R<sup>3</sup> are independently selected from C<sub>1</sub> to C<sub>5</sub> alkyl.